

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
77 West Jackson Boulevard
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO. 02AH46		PROJECT NAME Cheshire Monitoring Study				NO. OF CON- TAINERS	<div style="text-align: right;">Activity Code: 12345 90701A</div> <div style="text-align: center; font-size: 2em;">AIR 20020069</div>														
SAMPLERS: (Print Name and Sign) Mike Murphy <i>Mike</i>																					
STA. NO.	DATE	TIME	COM P	GRA B	STATION LOCATION															TAG NUMBERS	
D01	5/2	00:00	X		GHS	1														5-340208 1 to 1	
SO1	5/2	00:00	X		GHS	1														5-340207 1 to 1	
SO2	5/2	00:00	X		RVHS	1														5-340209 1 to 1	
SO3	5/2	00:00	X		ADDAVILLE	1														5-340210 1 to 1	
																				GHS # 3012,	
																				Pstg Avg = 19.25	
																				GHS # 3013,	
																				Pstg Avg = 19.7	
																				RVHS,	
																				Pstg Avg = 19.8	
																				Addaville,	
																				Pstg Avg = 19.15	
Relinquished by: (Signature)			Date / Time		Received by: (Signature)			Ship To:													
<i>M.J. Murphy</i>			5-2-02 13:47		<i>William Syz</i>																
Relinquished by: (Signature)			Date / Time		Received by: (Signature)			ATTN:													
Relinquished by: (Signature)			Date / Time		Received for Laboratory by: (Signature)			Date / Time		Airbill Number											
					<i>William Syz</i>			5/5/02 14:48		UPS # 1Z4011990140777333											
																	Chain of Custody Seal Numbers				

Project No. 02AH46 Project Name CHESHIRE MONITORING STUDY 90101A
AIR 2002069 ARRIVAL DATE: 5/15/2002 DUE DATE: 6/5/2002

Sampler

Mike Murphy

Cooler ID 1 Page 5-140052

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH46D01	D01	02/05/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	GHS	1	5-340208 1 to 1

Bottle No. 1

Parameter

PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH46SO1	SO1	02/05/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	GHS	1	5-340207 1 to 1

Bottle No. 1

Parameter

PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH46SO2	SO2	02/05/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	RVHS	1	5-340209 1 to 1

Bottle No. 1

Parameter

PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH46SO3	SO3	02/05/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	ADDAVILLE	1	5-340210 1 to 1

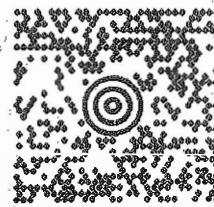
Bottle No. 1

Parameter

PM10

FROM:
SOUTHEAST DISTRICT OFFICE
(740) 385-8501
OHIO EPA
2195 E. FRONT STREET
LOGAN OH 43138-8637

1 LBS 1 OF 1



IL 606 9-08



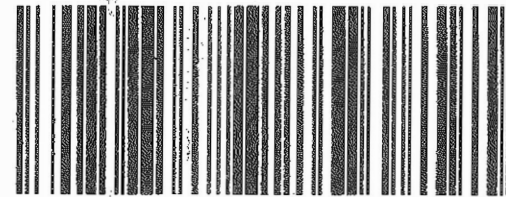
SHIP TO:

WILLIAM SARGENT JR.
USEPA CENTRAL REGIONAL LABORATORY
10 FLOOR
536 SOUTH CLARK STREET
CHICAGO IL 60605

UPS NEXT DAY AIR

TRACKING #: 1Z 401 199 01 4077 7333

1



BILLING: P/P

WILLIAM SARGENT JR.
USEPA CENTRAL REGIONAL LABORATORY
10 FLOOR
536 SOUTH CLARK STREET
CHICAGO IL 60605

UOW 3.5.1 Xerox F. 14.0A 06/2001

Fold here and place in label pouch

CENTRAL REGIONAL LABORATORY
Data Checklist

Data Set AIR 20020069 Cheshire Monitoring Study
Suspended Particles

- ☒ Chain of Custody
- ☒ Analysis Request Form(s)*
- ☐ Sample Tags
- ☒ Transmittal Report w/signatures of the following:
 - Analyst(s)
 - Environmental Data Coordinator

*Analysis Request Forms provide the data user a means to connect sample numbers with sampling locations.

Prepared by: Sylvia Puffin 6-3-02
Environmental Data Coordinator



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: JUN 03 2002

Subject: Review of Region 5 Data for CHESHIRE MONITORING STUDY

From: **Edgar Santiago, Chemist**
Region 5 Central Regional Laboratory

To:

Attached are the results for: CHESHIRE MONITORING STUDY

CRL data set number: 20020069

Samples analyzed for: **Suspended Particles**

Results are reported for sample designations: 2002AH46D01, 2002AH46S01, 2002AH46S02, and 2002AH46S03.

JUN 03/2002

Data Management Coordinator and Date Received

Date Transmitted: JUN 03/2002

Please have the U.S. EPA Project Manager/Officer complete the Customer Satisfaction Survey, attached, or call the CRL Sample Coordinator at 3-1226.

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
ML-10C

_____/_____/_____
Received by and Date

Comments:

Rev. 7/23/01

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

CHAIN OF CUSTODY RECORD

REGION 5
77 West Jackson Boulevard
Chicago, Illinois 60604

PROJ. NO. 02AH46		PROJECT NAME Cheshire Monitoring Study				NO. OF CON- TAINERS	<div style="text-align: right;">Activity Code: 12345 90701A</div> <div style="text-align: center; font-size: 2em;">AIR 20020069</div>												
SAMPLERS: (Print Name and Sign) Mike Murphy <i>Mike Murphy</i>																			
STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION													TAG NUMBERS	
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																		Pstg Avg = 19.8	
																		Addaville,	
																		Pstg Avg = 19.15	
Relinquished by: (Signature) <i>M.J. Murphy</i>			Date / Time 5-2-02 13:47		Received by: (Signature) <i>William Sygo</i>			Ship To:											
Relinquished by: (Signature)			Date / Time		Received by: (Signature)			ATTN:											
Relinquished by: (Signature)			Date / Time		Received for Laboratory by: (Signature) <i>William Sygo</i>			Date / Time 5/5/02 14:48		Airbill Number UPS # 124011990140777333									
															Chain of Custody Seal Numbers				

Project No. 02AH46 Project Name CHESHIRE MONITORING STUDY 90101A
AIR 20020069 ARRIVAL DATE: 5/15/2002 DUE DATE: 6/5/2002

Sampler

Mike Murphy

Cooler ID 1 Page 5-140052

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH46D01	D01	02/05/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	GHS	1	5-340208 1 to 1

Bottle No. 1

Parameter

PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH46SO1	SO1	02/05/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	GHS	1	5-340207 1 to 1

Bottle No. 1

Parameter

PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH46SO2	SO2	02/05/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	RVHS	1	5-340209 1 to 1

Bottle No. 1

Parameter

PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH46SO3	SO3	02/05/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	ADDAVILLE	1	5-340210 1 to 1

Bottle No. 1

Parameter

PM10

CRL Data Review Qualification Codes

QUALIFIER	DESCRIPTION
B	This flag is used when the analyte is found in the associated <u>B</u> lank as well as the sample. It indicates possible blank contamination and warns the user to take appropriate action while assessing the data. See the case narrative for a discussion of common lab contaminants and/or the relative concentration of contamination in the samples and blanks for relevance.
J	This flag is used when the analyte is <u>estimated</u> due to quality control limit(s) being exceeded. This flag accompanies all GC/MS tentatively identified compounds (TICs). This flag also applies to a suspected, unidentified interference. This flag is placed on affected detected results as well as non-detected (i.e., "U" flagged) results. (<u>J</u> is the flag used in the Superfund CLP SOW and Data Review Functional Guidelines and is used by CRL for consistency.)
M	This flag is used when the analyte is confirmed to be qualitatively present in the sample, extract or digestate, with a quantity at or above the CRL <u>M</u> ethod Detection Limit (MDL) but below the lowest concentration of the calibration curve. This flag indicates the quantitated value is <u>estimated</u> since it falls below the lowest calibration standard in the calibration curve.
N	This flag applies to GC/MS <u>N</u> tentatively Identified Compounds (TICs) that have a mass spectral library match.
Q	This flag applies to analyte data that are severely estimated due to quality control and/or <u>Q</u> uantitation problems, but are confirmed to be qualitatively present in the sample. <u>No value is reported with this qualification flag.</u>
R	This flag applies to analyte data that are <u>R</u> ejected and unusable due to severe quality control, quantitation and/or qualitative identification problems. No other qualification flags are reported for this analyte. <u>No value is reported with this qualification flag.</u>
U	This flag is used when the analyte was analyzed for but <u>U</u> ndetected in the sample. The CRL RL for the analyte accompanies this flag. When the customer requests CRL to report below our RL down to our MDL, undetected analytes are reported with a "U" code and the MDL. As with sample results that are positive, the value is corrected for dry weight, dilution and/or sample weight or volume.

03/07/01

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT FOR THE TEAM: ANALYTICAL AND INORGANIC (A&I)

DIVISION/BRANCH: AIR DIVISION SAMPLING DATE: 05/02/2002 LAB ARRIVAL DATE: 05/15/2002 DUE DATE: 06/05/2002
DU NUMBER: 90101A DATA SET NUMBER: 20020069 STUDY: CHESHIRE MONITORING STUDY PRIORITY: 1 LABORATORY :CRL

SAMPLE #	CRL LOG NUMBER	SAMPLE DESCRIPTION	SUSPENDED PARTICLE (g/filter)			
1	2002AH46D01	GUIDING HANDS SCHOOL	0.0343			
2	2002AH46S01	GUIDING HANDS SCHOOL	0.0325			
3	2002AH46S02	RVHS	0.0329			
4	2002AH46S03	ADDAVILLE	0.0368			
DATE OF ANALYSIS			05/21- 22/2002			
ANALYST			E.S			

Reviewed by: FAA Date: 5/31/02

Page 1 of 1

CRL SOP: HK015	Date: 07 January 2000	Revision No: 1
Data review for the Analytical and Inorganic Group		Page 1 of 1

ATTACHMENT II

CRL Analytical and Inorganics Data Review Checklist

Batch Number: 20020069 Facility: CHESHIRE MONITORING
 Parameter: PM10 CRL.SOP: AIG 047

Package Overview:	YES	NO
Raw Data Package Complete?	✓	
Results Reported Correctly?	✓	
Special Requests Done?	N/A	
Calculations Checked?	✓	
Calibration Not Exceeded?	N/A	
Manual Peak Integration performed? Circle one IC or GC and Check	N/A	
Field QC Checked?	N/A	
Quality Control:		
Holding Times Met?	N/A	
Preservation Checked?	N/A	
Proper Digestion Verified?	N/A	
Initial Instrument Performance Checks Verified?	✓	
Calibration Verification Checked?	N/A	
Sample-Specific QC (Internal Standards or Analytical Spikes) Okay?	N/A	
Matrix QC Checked?	N/A	
Digestion Blanks Checked?	N/A	
Spiked Blank Checked?	N/A	
LCS (if applicable) Checked?	N/A	
QCS (if applicable) Checked?	N/A	
Final Check		
Technical Review Done?	✓	
Narrative Complete?	✓	

Analyst: E.S. Peer Reviewer: F.A.A.

Date: 5/22/02 Date: 5/31/02

Comments Attached? (Y/N) N

Data Set Number:	20020069	Parameter:	Suspended Particles
Facility Name:	CHESHIRE MONITORING STUDY		
Study Name:	CHESHIRE MONITORING STUDY		
Date of Narrative:	05/22/2002	Analyst:	ES
		Signature:	ES

ANALYSIS CASE NARRATIVE

Four (4) exposed filters were received for suspended particle analysis at the Central Regional Laboratory (CRL) on May 15, 2002. Those filters were fractions of clean filters, prepared at the CRL and sent to the field for exposure. Filter identification numbers and other pertinent information obtained from the individual filters and packaging envelopes are presented in the table below.

Filters ID	Samples ID	Tag Number
Q6279994	2002AH46D01	5-340208
Q6279993	2002AH46S01	5-340207
Q6279989	2002AH46S02	5-340209
Q6279988	2002AH46S03	5-340210

Filter equilibrations and final weighting of exposed filters were performed according to CRL.SOP AIG047. Analysis of exposed filters began on 05/21/2002 and was completed on 05/22/2002. All exposed filters were in good conditions. No sampler sn number was provided for filters Q6279989 and Q6279988 (CRL sample I.D number 2002AH46S02 and 2002AH46S03.

QUALITY CONTROL (QC):

Analysis results were evaluated using the QC requirements of CRL.SOP AIG047. All the required quality control criteria for the laboratory, method, and system performance audits were evaluated and determined to be within the limits.

SAMPLE RESULTS:

All the sample results are acceptable for use.

ELECTRONIC DATA:

No electronic data.

CHESHIRE AIR MONITORING PROJECT

PM10

Parameter: Suspended Particles

Data Set Numbers: 20020066- 20020070

Date of Analysis 05/21-22/2002

Analyst: ES

BALANCE VERIFICATION:

Standard Weights	Balanced weight	Differences
Actual (g)	Balanced (g)	(g)
Limit +/-0.0005 g		
1.0000	1.0000	0.0000
2.0000	2.0001	-0.0001
5.0000	4.9999	0.0001

QC-SUMMARY FOR EXPOSED FILTERS

Filter ID	CRL Sample	Analysis	ANALYST	Exposed
Number	I.D Number	Date		weight (g)
Q6279991	2002AH47S01	05/22/02	Analyst 1	4.3634
Q6279991	2002AH47S01	05/22/02	Analyst 2	4.3638
Differences (Limit +/- 5 mg).....				-0.0004
Q6279983	2002AH45S03	05/22/02	Analyst 1	4.3910
Q6279983	2002AH45S03	05/22/02	Analyst 2	4.3914
Differences (Limit +/- 5 mg).....				-0.0004

CHESHIRE AIR MONITORING PROJECT
PM10

Filter ID	CRL Sample	Sampling	Station	Sampler	Pstg	P1/Pa	Total	Pre Weight	Exposed	Weight	PM10
Number	I.D Number	Date	Location	SN	Avg		Volume (M^3)	of filters (g)	weight (g)	Gain	(UG/M^3)
Data set Number 20020069											
Q6279994	2002AH46D01	05/02/02	Guiding Hands School	3013	19.70		0.00	4.3793	4.4136	0.0343	ERR
Q6279993	2002AH46S01	05/02/02	Guiding Hands School	3012	19.25		0.00	4.3950	4.4275	0.0325	ERR
Q6279989	2002AH46S02	05/02/02	RVHS		19.80		0.00	4.3586	4.3915	0.0329	ERR
Q6279988	2002AH46S03	05/02/02	Addaville		19.15		0.00	4.3651	4.4019	0.0368	ERR

General information

Standard weights, actual (g)

Balanced weights, balanced (g)

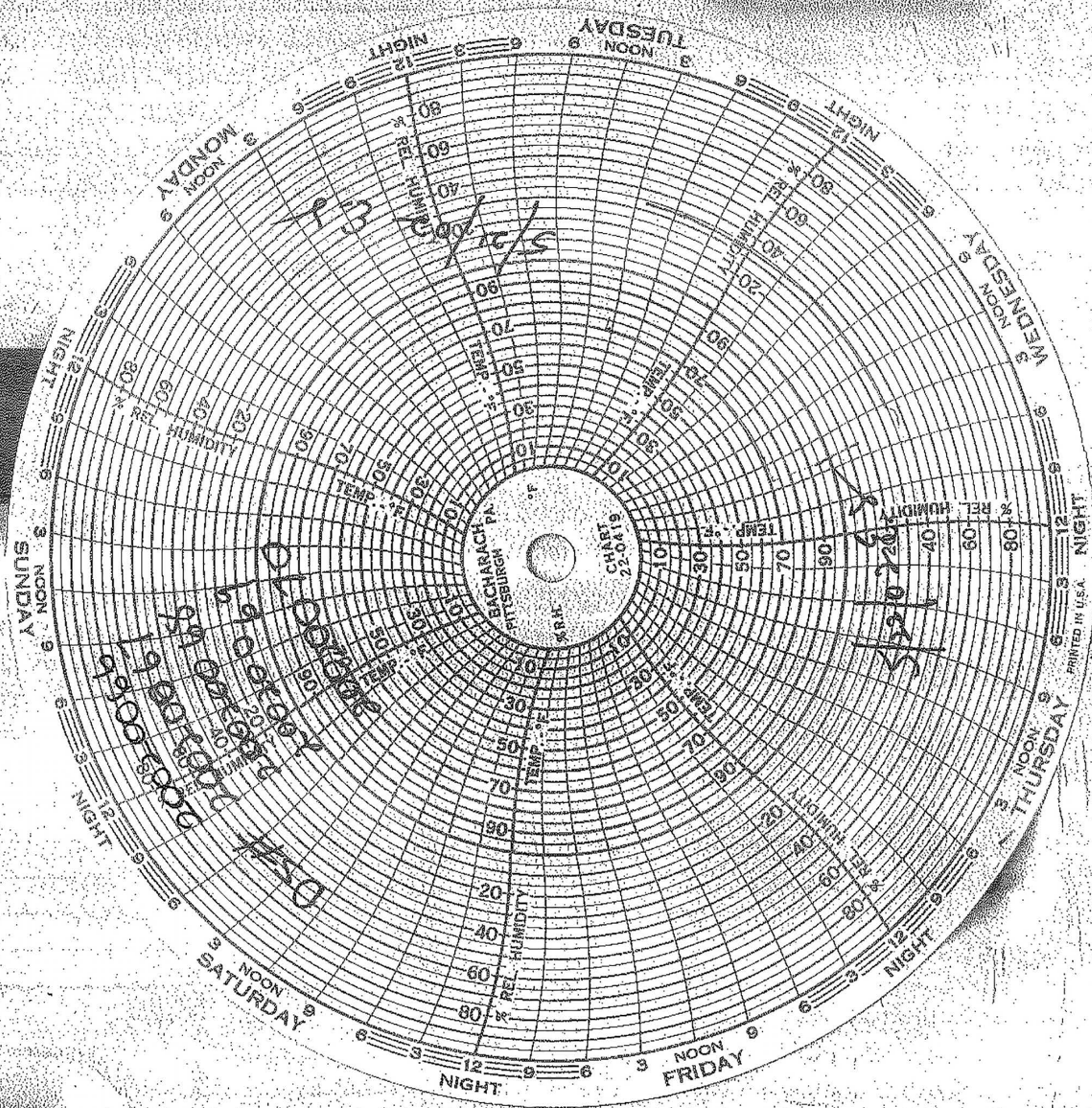
General information	Standard weights, actual (g)	Balanced weights, balanced (g)
METTLER	0.501000	0.1000
AG285	0.2000	0.2000
S/N 1120181840	0.5000	0.5000

mettler 50802	0.1000	0.0999
AG 285 KS	0.5000	0.4999
1120181846	2.0000	2.0000
	5.0000	5.0000
	10.0000	9.9999

SAR TORIUS	(mg) 1500+200+200+100	1.0000	1.0000
#37010119		2.0000	2.0001
5/22/02 E.8		5.0000	4.9999

TS	FILTER I.D	TARE wt (g)	DUP wt (g)	EXPOSED wt (g)	EXPOSED wt DUP (g)	COMMENTS
	Q6280011	4.3826				
	Q6280012	4.3890				
	Q6280013	4.3380				
	Q6280014	4.3649				
	Q6280015	4.3751		4.3914		
	Q6280016	4.3537				
	Q6280017	4.3607		4.3787		
	Q6280018	4.4018		4.4190		
	Q6280019	4.3867		4.4090		
	Q6280020	4.3540		4.3842		
	Q6279995	4.3364		4.3657	4.66 4.3662 now 5/22/02	
	Q6279994	4.3793		4.4136		
	Q6279993	4.3950		4.4275		
	Q6279992	4.3634		4.3964		
	Q6279991	4.3423		4.3634	4.3638	
	Q6279990	4.3693		4.3900		
	Q6279989	4.3586		4.3915		
	Q6279988	4.3651		4.4019		
	Q6279987	4.3899		4.4205		
	Q6279986	4.3982		4.4304		
	Q6279985	4.3759		4.4050		
	Q6279984	4.3310		4.3573		
	Q6279983	4.3607		4.3910	4.3914	now
	Q6279982	4.3609		4.3952		

IS	FILTER I.D.	TARE wt (g)	DUP wt (g)	EXPOSED wt (g)	EXPOSED wt DUP (g)	COMMENTS
12	Q8609578	4.3518		4.3696		
	Q8609577	4.4047				
	Q8609576	4.4045				
2	Q8609575	4.4086				
	Q8609574	4.3944				
	Q8609573	4.3820				
	Q8609572	4.3980	4/9/02 Rep 4.3983			
	Q8609571	4.4116				
	Q8609570	4.3708				
	Q8609569	4.3923				
	Q8609568	4.3413				
	Q8609567	4.3699				
	Q8609566	4.3652				
	Q8609565	4.3893				
	Q8609564	4.3782				
	Q8609563	4.3914				
	Q8609562	4.4055				
	Q8609561	4.4050				
	Q8609560	4.3683	4/9/02 Rep 4.3687			
	Q8609559	4.3343				
	Q8609558	4.3507				
	Q8609557	4.3532				
	Q8609556	4.3494				
	Q8609555	4.3580				



US EPA Region 5 Field Sample



3-340208-1

Parameters PM10

AIR 20020009

Preservative None S M MD B D
 Sample ID 02AH46D01 X
 Sampler M.J. Murphy
 Date 5-2-02

AIRS

M-10 ☒

OPERATOR CERP

DATE 5-2-02

SP

SITE GHSH 3013 Q627774

AVG. RECORDER RESP. 14.7

TEMP °C K FINAL WT g

LAPSED TIME 1440 MINUTES PRESS mmHg INITIAL WT g

LOW m³/min TOTAL FLOW m³ SAMPLE WT g

TD ACTUAL PM-10 ug/m³

COMMENTS:

US EPA Region 5 Field Sample



5-340207-1

Parameters PM10

6202202006

Preservative None S M MD B D

Sample ID 02AH46SO1 X

Sampler M.J. Murphy

Date 5-2-03

PM-10 ☒ SAROAD OPERATOR OLEPA DATE 5-2-03

TSP SITE GHS# 3062 C06277775

AVG. RECORDER RESP. 1.125 TEMP C K FINAL WT g

ELAPSED TIME 1440 MINUTES PRESS mmHg INITIAL WT g

FLOW m³/min TOTAL FLOW m³ SAMPLE WT g

STD ACTUAL PM-10 ug/m³

COMMENTS:

US EPA Region 5 Field Sample



5-340209-1

Parameters PM10

Air 2002 00109

Preservative None S M M D B D
 Sample ID 02AH46SO2 X
 Sampler *M. J. Murphy*
 Date *5-2-02*

AIRS

PM-10

OPERATOR *OEPA*

DATE *5-2-02*

SP

SITE *BUHS Q6279787*

AVG. RECORDER RESP.

17.8

TEMP

°C

K

FINAL WT

g

ELAPSED TIME

1440

MINUTES

PRESS

mmHg

INITIAL WT

g

FLOW

m³/min

TOTAL FLOW

m³

SAMPLE WT

g

STD

ACTUAL

PM-10

ug/m³

COMMENTS:

COMMENTS:

STD _____ ACTUAL _____
 FLOW m^3/min _____
 ELAPSED TIME min _____
 AVG. RECORDER RESP. 19.15 _____
 TSP _____
 AIRS _____
 SITE *Addenville* _____
 OPERATOR *DEPT* _____
 DATE *5-2-02* _____
 PM-10 _____
 TEMP $^{\circ}C$ _____
 PRESS $mmHg$ _____
 TOTAL FLOW m^3 _____
 SAMPLE WT ug/m^3 _____
 INITIAL WT _____
 FINAL WT _____

US EPA Region 5 Field Sample



5-340210-1

Parameters PM10

AIR 2002 0069

Preservative None

S M M D B D

Sample ID 02AH46S03

X

Sampler *M.J. Murphy*

Date *5-2-02*